

## **IN THE CLAIMS:**

A complete listing of the claims is set forth below.

1.     **(Original)** A method for optimizing prices at which products are sold in an automated marketplace, comprising the steps of:
  - generating a matrix of all possible buyers and sellers;
  - for each buyer, providing a reserve price corresponding to a maximum purchase price;
  - for each seller, providing a reserve price corresponding to a minimum sales price;
  - calculating a utility value for each pairing of buyers and sellers;
  - selecting a unique pairing of buyers and sellers that maximizes total utility;
  - calculating a buyer optimal allocation of the total utility for all buyers and sellers in a stable manner;
  - calculating a seller optimal allocation of the total utility for all buyers and sellers in a stable manner; and
  - for each pair in the unique pairing, selecting a transaction price that allocates the utility between that seller and that buyer.
2.     **(Original)** The method of claim 1, wherein the step of providing a reserve price for each buyer comprises the step of:
  - for each buyer, providing a reserve price corresponding to a maximum purchase price, wherein at least one buyer limits the sellers to which the buyer agrees to be matched to a subset less than all possible sellers.
3.     **(Original)** The method of claim 2, wherein each buyer sets a reserve price for each possible seller with whom that buyer agrees to be matched, and wherein the reserve price can be different for each such seller.

4. **(Original)** The method of claim 1, wherein the step of providing a reserve price for each seller comprises the step of:

for each seller, providing a reserve price corresponding to a minimum sales price, wherein at least one seller limits the buyers to which the seller agrees to be matched to a subset less than all possible buyers.

5. **(Original)** The method of claim 4, wherein each seller sets a reserve price for each possible buyer with whom that seller agrees to be matched, and wherein the reserve price can be different for each such buyer.

6. **(Original)** The method of claim 1, wherein the utility value calculated for each pairing of a buyer and a seller is a difference between that buyer's reserve price and that seller's reserve price.

7. **(Original)** The method of claim 1, wherein the step of selecting a transaction price comprises the steps of:

providing a proportion value between 0 and 1; and  
selecting a transaction price which is proportional to a difference between the optimized seller utility and the optimized buyer utility equal to the proportion value.

8. **(Original)** The method of claim 7, wherein the proportion value equals 0.5.

9. **(Original)** The method of claim 7, wherein the proportion value is less than 0.5.

10. **(Original)** The method of claim 7, wherein the proportion value is greater than 0.5.

11. **(Original)** The method of claim 1, further comprising the step of:  
conducting product transactions at the selected transaction prices.

12. **(Original)** The method of claim 1, wherein the buyers and sellers provide their respective reserve prices by communicating them to a central marketplace server.

13. **(Original)** A system for matching buyers and sellers in an automated marketplace, comprising:

a plurality of buyers for a product;

a plurality of sellers for the product;

a central system containing a matrix of all possible buyers and sellers for the product;

means for each buyer to select a reserve price representing a maximum purchase price for the product;

means for each seller to select a reserve price representing a minimum selling price for the product;

an optimizer within the central system for assigning a utility value to pairings between buyers and sellers, and calculating a set of such pairings to optimize a global utility value; and

means within the central system for assigning buyers and sellers according to the calculated optimized set of pairings, and assigning a stable transaction price for each pairing between the buyer's and seller's reserves for that pairing.

14. **(Original)** The system of claim 13, wherein each buyer can set a different reserve price for each possible seller.

15. **(Original)** The system of claim 13, wherein each seller can set a different reserve price for each buyer.

16. **(Original)** The system of claim 13, wherein the assigned utility value for each pairing is equal to a difference in the buyer's reserve and the seller's reserve for that pairing.